

CHERNOMORDIKOV, M.Z.; SHAPIRO, B.A.

Dependence of the final recovery factor on the quantity of
water withdrawn from a pool. Nefteprom. delo no.7:3-7 '64.
(MIRA 17:8)

1. Azerbaydzhanskiy nauchno-issledovatel'skiy institut po
dobyche nefti.

CHERNOMORDIKOV, M.Z.; SHAPIRO, B.A.

Determining the optimal distances between wells in the development
of oil pools. Neft.khoz. 43 no.4:25-28 Ap '65. (MIRA 18:4)

ALIYEV, Sh.N.; CHERNOMORDIKOV, M.Z.; SHAPIRO, B.A.

Efficient profile for the filter section of a hole. Nefteprom.
delo no.4:12-15 '65. (MIRA 18:6)

17. Azerbaydzhanskiy nauchno-issledovatel'skiy institut po dobyche
nefti.

SHAPIRO, B.E.; DOLOTOV, V.V.; KACHURA, B.S.; MITSMAKHER, I.D.;
BERGER, K.V., red.; LUUSHCHENKO, N.L., tekhn. red.

[Organizing and planning the work of enterprises building
apartment houses] Organizatsiia i planirovanie raboty do-
mostroitel'nykh kombinatov. [By] B.E.Shapiro i dr. Kiev,
Gosstroizdat USSR, 1963. 91 p. (MIRA 17:2)

[illegible][illegible]

1. M. leucostictus, tanypterygius, leucostictus, etc.
M. leucostictus.

SHAPIRO, B.I.; KAZAKOVA, V.M.; SYRKIN, Ya.E.

Study of some derivatives of aromatic ion radicals by the
electron paramagnetic resonance method. Izv. Akad. Khim.
no. 4:540-547 J1-Ag '65 (MIRA 19:1)

I. Institut tekhnicheskoy khimicheskoy tekhnologii imeni M.V. Lomo-
nova. Submitted February 17, 1965.

NOMOKEROVA, L.M.; SHAPIRO, B.I.

Epiphysis and subcommissural organ of some vertebrates. Arkh. anat.,
gist. i embr. 48 no.2:36-44 F '65. (MIRA 18:8)

1. Laboratoriya sravnitel'noy fiziologii tsentral'noy nervnoy
sistemy (zav. - chlen korrespondent AN ArmSSR i A.I.Karamyan)
Instituta evolyutsionnoy fiziologii imeni I.M.Sechenova AN SSSR,
Leningrad.

SHAPIRO, Berta Il'inishna; VINNIKOV, Ya.A., prof., otv. red.

[Opticovegetative connections of the diencephalon;
comparative morphophysiological study] Optiko-vegeta-
tivnye svyazi mezhutochnogo mozga; sravnitel'nyi morfo-
fiziologicheskii ocherk. Moskva, Nauka, 1965. 112 p.
(MIRA 18:11)

KHIMICH, I.G. (Leningrad, ul. Vosstaniya, 10, kv.19); SHAPIRO, S.I.
(Leningrad, 2-ya Sovetskaya ul., 33, kv.7)

Subcommissural organ in photogenic catalepsy. Arkh. anat., gist.
i embr. 46 no.6:42-49 Je '64. (MIRA 18:3)

1. laboratoriya evolyutsii dvigatel'noy deyatel'nosti (zav. - doktor biologicheskikh nauk prof. Ye.K. Zhukov) i laboratoriya gistofiziologii (zav. - kand. biol. nauk Ye.V. Moiseyev) Instituta evolyutsionnoy fiziologii imeni Sechenova AN SSSR, Leningrad.

KARMANOVA, I.G. (Leningrad, ulitsa Vorob'evskaya 10, kachelnyy dom SHAP, 41,
B.1. (Leningrad, 8-ya Sovetskaya ulitsa, 31. kachelnyy dom)

Supraoptic and paraventricular cellular aggregations of the anterior
hypothalamus in photogenic catalepsy. Arkh. anat., hist. i emb. 45
no.7:34-41 Ja '63. (CMA 17:4)

1. Laboratoriya razvitiya i regulyatsii dvigatel'noy sily i d'nosti
(zav. - doktor biologicheskikh nauk M.I. Sapozhnikov) i laboratoriya
gistorfiziologii (zav. - prof. Ye.A. Moiseyev) Institut fiziologicheskoy
fiziologii imeni I.M. Sechenova AN SSSR, Leningrad.

SHAPIRO, B.I.

Variations of the branches of the middle cerebral artery in man.
Trudy Gos.nauch.-issl.psikhonevr.inst. 28:69-77 '62.

(MIRA 15:12)

(BRAIN—BLOOD SUPPLY)

SHAPIRO, B.I.

Innervation of the liver in guinea pigs, rabbits, and white mice.
Mat. po evol. fiziol. 3:51-60 '58. (MIRA 12:4)
(LIVER--INNERVATION)

SHAPIRO, B. K.

Osnovy rascheta glushitelei shuma vykhlopa. Moskva, Oborongiz, 1943.
62, (2) p. diags. (Tsentral'nyi institut aviatsionnogo motorostroeniia.
Trudy, no. 47)

Bibliography: p. (64)

Fundamentals of calculating the mufflers of exhaust noise.

DLC: TJ789.SL5

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library
of Congress, 1953.

SHAPIRO, B. K.

USSR/Aeronautics

Engines, Aircraft - Detonations

Fuel, Aviation

Apr 47

"Electric-acoustic Method of Recording Knocks in Plane Engines," A. S. Sokolik, Dr Chem Sci, A. S. Sokolik, B. K. Shapiro, Cand Tech Sci, M. I. Rodman, 7 pp

"Tekh Voz Flota" No 5 (230)

In the process of testing plane engines and fuel, in connection with a knock, it is most important to have objective registration of the knock to determine the critical point of cylinders and to be able to record the data on a scale. This article explains a new method of recording the knock by acoustic means and is meant to familiarize specialists with the new development. The author presents apparatus layout diagram and also photographs of oscillograph recording of an engine under normal operation and when there is a knock.

PA 28T9

Dissertation: "Morphological Changes in the Lungs in Kidney and Liver Infections."
Cand Med Sci, Kirgiz Medical Inst, 28 May 54. Sovetskaya Kirgiziya, Frunze, 18 May 54.

DO: SM. 284, 26 Nov 1954

USSR / Human and Animal Physiology. Excretion.

T-6

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 3478

Author : Shapiro, B. M.
Inst : Kirgiz State Medical Institute
Title : Study on the Basic Argyrophilic Substance of the Inner
Organs in Ligations of the Ureters, the Renal Vessels
and in Nephrectomy

Orig Pub : Tr. Kirg. gos. med. in-t, 1956, 8, 86-89

Abstract : The state of the argyrophilic fibers in the inner organs was investigated in 53 rabbits following ligature of the renal vessels, the ureters, or after a one-sided nephrectomy. The preparations were fixed by the method of Fut. The surgical procedures on the kidneys were accompanied by changes of the argyrophilic fibers not only in the renal tissue, but also in other organs (lungs, myocardium, liver). Soon after the operation, melting of

Card 1/2

44

SHAPIRO, Boris Moiseyevich; PAYEVSKIY, V.A., otv. red.; KOROTKOVA, L.,
red. izd-va; LEBEDEV, A., tekhn. red.

[Auditing financial statements of a cooperative society]
Schetnaia proverka bukhgalterskogo otcheta potrebitel'skogo
obshchestva. Moskva, Gosfinizdat, 1962. 78 p.
(MIRA 17:1)

ZHUKOV, V.V.; SHAPIRO, B.M., dotsent, nauchnyy rukovoditel' raboty

Immunological characteristics of cytotoxic nephritis in a chronic experiment. Trudy KirgNOAGE no.2:127-129 '65.

Characteristics of the beginning of recovery in chronic Masugi nephritis. Ibid.:129-130 (MIRA 18:11)

1. Kirgizskiy gosudarstvennyy meditsinskiy institut.

ZNAMENSKIY, M.S.; SHAPIRO, B.M.

Teratomas of the retroperitoneal space. Sov. zdrav. Kir.
no.6:50-52 N-D'62. (MIRA 16:6)

1. Iz khirurgicheskogo otdeleniya (zav. - kand.med.nauk V.S. Kononov) Kirgizskogo nauchno-issledovatel'skogo instituta okhrany materinstva i detstva (dir. - kand.med. nauk A.A. Il'in) i kafedry patologicheskoy anatomii (zav. - zasluzhennyy deyatel' nauki Kirgizskoy SSR B.F.Malyshov) Kirgizskogo gosudarstvennogo meditsinskogo instituta
(RETROPERITONEAL SPACE--TUMORS)

BRAUN, A.A., prof.; SHAPIRO, B.M., dotsent

Development of medical science in the Kirghiz S.S.R. Sov. zdraz.
Kir. no.4/5:9-19 JL-0'63 (MIRA 17:1)

SHAPIRO, B.M., (Moskva)

Changes in the pancreas in myocardial infarct. Arkh. pat. 25 no.11:50-58 '63. (MIRA 17:12)

1. Iz kafedry patologicheskoy anatomii (zav. - chlen-korrespondent AMN SSSR prof. A.I.Strukov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

AL'PERT, Ya. L., CHUDESENKO, E. F. and SHAPIRO, B. S.

"Results of Studies Conducted in the Outer Region of the Ionosphere by
Observations of Radio Signals of the First Artificial Earth Satellite."

In Book -- Preliminary Results of Scientific Research by Means of the First
Soviet Earth Satelllites and Rockets, pp 40-108, Moscow 1958.

GINDIN, Ye.Z.; LEYKIN, G.A.; LOZINSKIY, A.M.; MASEVICH, A.G.; AL'PERT, Ya.I.;
CHUDSENKO, E.F.; SHAPIRO, B.S.; GALKIN, A.M.; GORLOV, O.G.; KOTOVA,
A.P.; KOSOV, I.I.; PETROV, A.V.; SEROV, A.D.; CHERNOV, V.N.;
YAKOVLEV, V.I.; MIKHAYLOV, A.A., otvetstvennyy red.; BBN'KOVA, N.P.,
doktor fiz.-mat. nauk, otvetstvennyy red.; SILKIN, B.I., red.;
PODOL'SKIY, A.D., red.; PRUSAKOVA, T.A., tekhn. red.

[Preliminary results of the scientific research on the first
Soviet artificial earth satellites and rockets; collection of
articles in the 11th section of the IGY program (rockets and
satellites)] Predvaritel'nye itogi nauchnykh issledovaniy s
pomoshch'yu pervykh sovetskikh iskusstvennykh sputnikov zemli
i raket; sbornik statei (XI razdel programmy MGG - rakety i
sputniki). Moskva, Izd-vo Akad. nauk SSSR. No.1. 1958. 148 p.
(MIRA 11:10)

1. Russia (1923- U.S.S.R.) Mezhdunarodnyy komitet po
provedeniyu Mezhdunarodnogo geofizicheskogo goda. 2. Chlen-kor-
respondent AN SSSR (for Mikhaylov).

(Atmosphere, Upper-Rocket observations)
(Artificial satellites)

AUTHORS: Al'pert, Ya. L., Dobryakova, F. F., SOV/53-65-2-1/14
Chudesenko, E. F., Shapiro, B. S.

TITLE: On Some Results Obtained When Determining the Electron
Concentration of the Exterior Domains of the Ionosphere by
the Observation of Radiosignals Emitted by the First Earth
Satellite (O nekotorykh rezul'tatakh opredeleniya elektronnoy
kontsentratsii vneshney oblasti ionosfery po nablyudeniya za
radiosignalami pervogo sputnika Zemli)

PERIODICAL: Uspekhi fizicheskikh nauk, 1958, Vol. 65, Nr 2, pp. 161-174 (USSR)

ABSTRACT: The first Sputnik was equipped with an automatic radio trans-
mitter which operated on frequencies of 20 and 40 megacycles.
The low degree of absorption of these radiowaves in the iono-
sphere made it possible to draw important conclusions on the
strength of these radiosignals with respect to the properties
of the ionosphere.
The authors of this paper discuss one of the possible methods of
utilizing the radiosignals emitted by the Sputnik; this method is
based upon the determination of the "radio-rising" and
"radio-setting" of the Sputnik, which takes place earlier and

Card 1/5

On Some Results Obtained When Determining the Electron
Concentration of the Exterior Domains of the Ionosphere
by the Observation of Radiosignals Emitted by the First
Earth Satellite

SOV/53-65-2-1/14

later respectively than optical rising and setting. These observations made it possible to determine an electron concentration (which is at about 320 km), of the concentration of neutral particles, as well as of the "boundary", where the atmosphere of the earth comes into contact with the interplanetary gas. It is not claimed that these first data obtained about the outer ionosphere are accurate; they merely serve as a first means of orientation with respect to prevailing conditions. The authors carried out their investigation on the basis of radio observations of the Sputnik which were made on the 5. June and 7. October 1957: among the available material which comprised about 600 statements of time of the beginning and end of radio signals there were from 60 to 70 cases which could be utilized in practice for the determination of

$$\frac{\omega_c}{\omega} < \frac{\omega_c}{\omega_3} \text{ and } \frac{\omega_c}{\omega} \gg \frac{\omega_c}{\omega_3} \text{ respectively.}$$

Card 2/5

On Some Results Obtained When Determining the Electron Concentration of the Exterior Domains of the Ionosphere by the Observation of Radiosignals Emitted by the First Earth Satellite

SOV/53-65-2-1/14

(ω = transmitting frequency of the Sputnik, ω_b = the boundary values of frequency, $\omega_c = 3.18 \cdot 10^9 N_M$, N_M = maximum of electron concentration). For electron concentrations higher than in the case of the maximum concentration the authors obtained the following formula:

$$N = 1.8 \cdot 10^6 e^{-3.5 \cdot 10^{-3}(z-320)} \quad (z = \text{height in km})$$

The region above an altitude of about 600 km is called "exosphere" by the authors. It was found that at altitudes of several 1000 km the state of the earth's gas shell approaches the state of the interplanetary gas. The authors obtained the following values for the electron density and the density of neutral particles:

alti- tude in km	200	320	400	1150	1800	2460	3120	
elec- trons	$\sim 10^5$	$1.8 \cdot 10^6$	$1.4 \cdot 10^6$	$\sim 10^5$	10^4	10^3	10^2	/cm ³
neutral particles	$5 \cdot 10^9$	$\sim 2 \cdot 10^8$	$(6 \cdot 10^8)$	$(2 \cdot 10^5)$	$\sim 10^2$	< 1	(20)	/cm ³

Card 3/5

On Some Results Obtained When Determining the Electron
Concentration of the Exterior Domains of the Ionosphere
by the Observation of Radiosignals Emitted by the First
Earth Satellite

SOV/53-65-2-1/14

The following values were obtained for the electron recombination
coefficient α and the solar radiation S :

$z_M \sim 320 \text{ km}$ S_M $0,2 \text{ erg/cm}^2\text{sec}$ $\alpha_M \sim 10^{-10} \text{ cm}^3/\text{sec}$
 $z_M \sim 400 \text{ km}$ S_M $0,3 \text{ erg/cm}^2\text{sec}$ $\alpha_M \sim 10^{-11} \text{ cm}^3/\text{sec}$ (Table 1)
 $z \geq 1000 \text{ km}$ S_∞ $0,6 \text{ erg/cm}^2\text{sec}$ $\alpha_\infty \sim 10^{-12} \text{ cm}^3/\text{sec}$

(The index M denotes the maximum electron density in the respec-
tive region). The following values were obtained for the life
of the electrons τ_e and the time between ionization acts τ_H :

	$z \text{ (km)}$	τ_H	τ_e	
	≈ 320	$\sim 5 \cdot 10^7$	$\sim 5 \cdot 10^3$	
Card 4/5	~ 400	$\sim 3 \cdot 10^7$	$\sim 7 \cdot 10^4$	(26)

On Some Results Obtained When Determining the Electron
Concentration of the Exterior Domains of the Ionosphere
by the Observation of Radiosignals Emitted by the First
Earth Satellite

SOV/53-65-2-1/14

$z(\text{ km})$	τ_H	τ_e
≈ 1150	$\sim 2 \cdot 10^7$	$\sim 10^7$
≈ 1800	$\sim 2 \cdot 10^7$	$\sim 10^8$
≈ 2450	$\sim 2 \cdot 10^7$	$\sim 10^9$

with $\tau_e \approx 1/\alpha N$ and $\tau_H \approx \frac{1}{\sigma S/\epsilon_i}$

For the quasi-steady ratio $n/N \sim \tau_H/\tau_e$ with (26) the values
given in brackets in table 1 are found for the concentration of
the neutral particles. There are 9 figures, 1 table, and 9
references, 5 of which are Soviet.

1. Satellite vehicles 2. Radio transmitters--Performance
3. Electrons--Determination 4. Ionosphere--Properties
5. Radio waves--Absorption

Card 5/5

SCV-20-120-4-15, 67

REF ID:

Vil'paci, M. L., Dobryakova, N. A., Zhudosenko, A. A.,
Khar'ko, M. S.

TITLE:

On the results obtained by determining the Electron Concentra-
tion of the External Region of the Ionosphere on the Basis
of Radio Signals emitted by the First Earth Satellite (O
rezultatakh opredeleniya elektronnoy koncentratsii vneshney
chasti ionosfery po nablyudeniyam za radiosignalami pervogo
satel'nika zemli)

ABSTRACT:

Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 4, pp.743-746
(USSR)

ABSTRACT:

The measurements mentioned in the title are based upon the
determination of the time of the "radio-rising" and "radio-
setting" of the satellite. In this way data were obtained
concerning the distribution of the concentration N of the
electrons in the ionosphere above the maximum concentration
N_m: on these data are based calculations concerning the properties of the interplanetary gas. The
measuring method and its utilization is described relatively

Card 1-3

no. 120-120-4-15, 67

on the satellite obtained by determining the electron concentration of the
Extremal Region of the ionosphere on the basis of radio signals emitted
by the first earth satellite.

In detail, the authors have investigated the results obtained
from the radio signals transmitted by the satellite which
were recorded on the 1, 2, and 7 October 1957 at 6 different
points. The points were selected in which a pure "radio-
signature" or "radio-sitting" of the satellite could be observed
on the frequency of its transmission. For these points and for
this period the most frequent altitudes of the various strata
of the ionosphere are given. For H_{max} the value $1.8 \cdot 10^6$ is
found. In an altitude of 300-600 km in the so-called exo-
sphere the temperature of the gas must not be lower than in
lower altitudes. At this altitude ionization is nearly steady.
In altitudes of about 2000 to 3000 km the concentration of
electrons at the above mentioned conditions amounts to from
 10^{11} to 10^{12} electrons per cm³, and therefore this volume must
contain also the same number of positive ions. In these alti-
tudes the terrestrial atmosphere probably borders upon the
interplanetary gas. Also the density of the neutral particles
is probably greater in altitude of 320-400 km than has hither-
to been assumed and mentioned in published works. There are

Page 4

SOV/26-126-4-15/67

On the Results Obtained by Determining the Electron Concentration of the External Region of the Ionosphere on the Basis of Radio Signals Emitted by the First Earth Satellite

4 figures, 1 table, and 5 references, 1 of which is Soviet.

PRESENTED: March 31, 1958, by V. A. Kotelnikov, Member, Academy of Sciences, USSR

SUBMITTED: February 12, 1958

1. Electrons--Abundance 2. Ionosphere--Analysis 3. Radio signals--Applications 4. Satellite vehicles--Applications

Card 3 of 4

PHASE I BOOK EXPLOITATION SOV/5743

Akademiya nauk SSSR. Mezhdunarodnyy komitet po provedeniyu
Mezhdunarodnogo geofizicheskogo goda. V, razdel programmy MGG:
Ionosfera.

Issledovaniya ionosfery; sbornik statey (Ionospheric Researches;
Collected Articles. No. 3) Moscow, Izd-vo AN USSR, 1960.
100 p. 2,000 copies printed.

Resp. Ed.: N. V. Mednikov, Candidate of Physics and Mathematics;
Ed.: L. A. Trofimova; Tech. Ed.: T. V. Polyakova.

PURPOSE : This IGY publication is intended for geophysicists,
astrophysicists, and other scientists concerned with the
ionosphere and radio atmospherics.

COVERAGE: The collection of articles contains the results of
investigations on the ionosphere and radio atmospherics, based
chiefly on IGY observational data from USSR stations. The
articles may be grouped into the three following categories:

Card 1/5

Ionospheric Researches; Collected (Cont.)

SOV/5743

1) studies of the morphology and physics of both quiet and perturbed ionospheres; 2) methodology of evaluating absorption and drifts in the ionosphere; and 3) questions on the use of ionospheric observations for practical purposes. No personalities are mentioned. English abstracts and references follow each article.

TABLE OF CONTENTS:

Foreword	5
Shapiro, B. S. An Investigation of the Distribution of Ionization With Height	7
Kessenikh, V. N. Certain Peculiarities in the Geographic Distribution of the Maximum Electron Concentration in the F-2 Layer Over the Urals, Siberia, the North Caucasus, and Soviet Central Asia (1957-1958)	18

Card 2/5

Ionospheric Researches; Collected (Cont.)	SOV/5743	
Struin, O. N., and Ya. I. Fel'dshteyn. Nondeviating Absorption of Radio Waves in the Auroral Zone		66
Gusev, V. D., and S. F. Mirkotan. On Certain Anomalies During an Investigation of Ionospheric Drifts		77
Rapoport, Z. Ts. On the Question of Determining the M3000 Coefficient		83
Likhter, Ya. I., and G. I. Terina. Certain Results on Investigating the Intensity of Radio Atmospherics (Strays) at Moscow		90
Rodionov, Ya. S. A Possible Method of Determining Effective Recombination Coefficients and the Rate of Ionization in the Ionosphere		95
Zakharov, V. I., and Z. K. Shibayev. Effective Recombination		
Card 4/5		

POTAPOVA, N.I.; SHAPIRO, B.S.

N(h) profiles of the ionosphere over Moscow during the ionospheric
magnetic disturbance in November 1960. Geomag. i aer. 3 no.1:63-72 Ja-F
'63. (MIRA 16:4)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln
AN SSSR.

(Moscow—Magnetic storms—1960 (November))

30939
S/570/60/000/017/009/012
EO32/E514

9.9100

AUTHOR: Shapiro, B.S.
TITLE: On the prognosis of the geometrical parameters and the altitude-frequency h'f-characteristics of the ionosphere
SOURCE: Akademiya nauk SSSR. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln. Trudy. no.17(27). Moscow, 1960. Rasprostraneniye radiovoln i ionosfery. 216-239
TEXT: This is a continuation of the work reported by the present author in Ref.2 (Trudy NIIZM, no.7, 23, 1953). In the first section of the present paper the author shows that the h'f curves can be approximated to by parabolas and occasionally (daytime, equatorial latitudes) by triangles. The type of approximation made is clearly illustrated in Fig.1. Once the parameters of the parabolic and triangular distributions have been determined, the true altitudes can in principle be deduced. However, the experimental altitude frequency characteristics (ionograms) are not always available. Nevertheless, it is argued

Card 1/05

30939

S/570/60/000/017/009/012

E032/E514

On the prognosis of the ...

that $h_{\max}$ and y_m can be deduced from tabulated ionospheric data as described by the present author in Ref.2. $h_{\max}$ and y_m can in fact be found through the simultaneous solution of two equations involving the experimental values of the coefficients M , $h'_{\min}$, f_o and $f_{\min}$, where $M = f'_{\max}/f_o$, f_o is the critical frequency and f' is the frequency of an obliquely reflected wave (Ref.3; N. Smith. Proc. IRE, 27, No.332, 69, 1939). A study is also made of the diurnal, seasonal and eleven-year variations in $h_{\max}$, y_m , their geographical distribution, day-to-day variations and their behaviour during disturbed days. The information thus obtained is then used in the prognosis of $h_{\max}$, y_m . Use is made of the linear dependence of these quantities on the relative number R of sunspots. N.P. Ben'kova and V. I. Potapova (Ref6: Paper presented at the Jubilee Session of the Tomsk University, 1957) have shown that the variability of f_o and $h_{\max}$ may approximately be described by a normal distribution and the present author shows

Card 2/6 S

On the prognosis of the ...

³⁰⁹³⁹
S/570/60/000/017/009/012
E032/E514

that the variation in y_m also obeys this distribution. A simplified method for calculating the variance in the latter case is described. The method used in the long-range prognosis is summarized as follows: 1) In order to predict R from the linear relation between this quantity and h_{max}, y_m , a determination is made of the monthly averages of the hourly values of h_{max}, y_m . This is then used to calculate a prediction chart for h_{max}, y_m for a number of standard stations for each month and each value of R . 2) The $h'f$ -characteristic is then constructed from the values of h_{max}, y_m , read off from the chart, and the predicted values of f_o . The latter process is facilitated by families of "typical" $h'f/f_o$ curves, some of which are given in the present paper. 3) In addition to the long-range prognosis of the mean monthly characteristics, the author also describes a procedure to be used in order to predict the variation in the effective altitudes. This is done by evaluating the average values of the variances of h_{max}, y_m without taking into account cyclic variations. 4) The rather small Card 3/0 5

30939

On the prognosis of the ...

S/570/60/000/017/009/012
E032/E514

variation in the geometrical parameters of the ionosphere leads the author to the conclusion that the short-range prognosis of h'f curves for quiet and weakly disturbed days can be deduced from the long-range prognosis of the monthly averages for the geometrical parameters and the short-range prediction of the critical frequencies. 5) Comparison of the results of measurements was found to lead to satisfactory agreement with these predictions. It is pointed out that the procedures described in the present paper for the prediction of the geometrical parameters and h'f-characteristics can be further improved by detailed studies of the geographical distribution of the geometric parameters, particularly at low latitudes, and by obtaining more extensive data on the dependence of these parameters on the solar activity. The variation in the ratio of the critical frequencies of the F1 and F2 layers has an important effect on h'(F2) during daytime in the summer. Improvement of the prognosis of the h'f curves would require an improvement in the prognosis of the critical frequencies f_o . There are 8 figures, 4 tables and 7 references: 3 Soviet (1 a translation from English) and 4 non-Soviet. The English-language references read as follows: Ref.1: J.A.Ratcliffe; J.Geophys.Res.,

Card 4/6 5

On the prognosis of the ...

3039
S/570/60/000/017/009/012
EO32/E514

56, No.4, 463, 1951; Ref.3: Quoted in text; Ref.4: E.V.Appleton,
W.I.G.Beynon. Proc.Phys.Soc., 52, 518, 1940; 59, 331, 1947;
Ref.5: D.H.Shinn. J.Atm.Terr.Phys., 4, No.4-5,240,1953.

Card 5/5

S/203/61/001/005/018/028
A006/A101

AUTHORS: Shapiro, B. S., Shashun'kina, V. M.

TITLE: Motions in the F-layer of the ionosphere over Tbilisi during the eclipse on February 15, 1961

PERIODICAL: Geomagnetizm i aeronomiya, v. 1, no. 5, 1961, 760 - 765

TEXT: It was previously stated that the effect of solar eclipse on the F-layer was indirect, manifesting itself in the appearance of additional motions in this layer and a corresponding redistribution of ionization. To study this phenomenon during the eclipse of February 15, 1961, the authors employed ionograms of vertical sounding to calculate and investigate $N(h)$, i.e. the ionospheric profiles (distribution of ionization N with height h). They were calculated with the electronic "Strela" computer for the day of eclipse and the control day (19. 2. 1961) by the integral laminar method by taking into account the terrestrial magnetic field. Moreover, variations of median values of ionization N for an altitude of 240 km (N_{240}) were calculated for 5 magnetically most quiet days in February 1961. During the eclipse a decrease of ionization was observed on all levels investigated in the ionosphere with a minimum at 11 hr 20 min longitudinal

Card 1/2

Motions in the F-layer of the...

S/203/61/001/005/018/028
A006/A101

time. At levels above 200 km the $N_h(t)$ curves show two minima. In N_{max} values, minima and maxima are less pronounced. Changes in N during the eclipse are accompanied by corresponding changes in the height and thickness of the F2 layer. Variations of the term of motion during the eclipse (M_e) and median variations during the control days (M_c) are represented in curves and show a slight increase of M_e at the beginning of the eclipse and a further considerable decrease of M_c with a minimum in the second half of the eclipse. The results obtained are compared with data from analogous investigations of other eclipses in lower and middle latitudes. The authors thank V. V. Andriyanova, N. A. Bogacheva, V. G. Golovkova and S. P. Yes'man for their assistance. There are 4 figures, 1 table and 8 references; 2 Soviet-bloc and 6 non-Soviet-bloc.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i resprostraneniya radiovoln
AN SSSR (Institute of Terrestrial Magnetism, Ionosphere, and Propagation of Radiowaves, AS USSR)

SUBMITTED: August 4, 1961

Card 2/2

BEN'KOVA, N.P., doktor fiziko-mat. nauk, otv. red.; ~~SHAPIRO, B.S.,~~
otv. red.; GANGHUS, A.A., red.; SHEVCHENKO, G.N., tekhn. red.;
SIMKIN, G.S., tekhn. red.

[Papers]Sbornik statei. Moskva, Izd-vo Akad. nauk SSSR. (Re-
zul'taty issledovaniy po programme Mezhdunarodnogo geofiziche-
skogo goda). No.10. [Ionospheric studies]Ionosfernye issledo-
vaniia. 1962. 154 p. (MIRA 15:10)

1. Akademiya nauk SSSR. Mezhdunarodnyy geofizicheskiy ko-
mitet. V razdel programmy MGG. Ionosfera.
(Ionosphere)

15211
S/203/63/003/001/008/022
A061/A126

AUTHORS:

Potapova, N. I., Shapiro, B. S.

TITLE:

The N(h) profiles of the ionosphere over Moscow during the magneto-ionospheric disturbances in November 1960

PERIODICAL:

Geomagnetizm i aeronomiya, v. 3, no. 1; 1963, 63 - 72

TEXT:

The variations of the parameters of N(h) profiles over Moscow in the November 1960 disturbances are compared with the variations of July 1959. The N(h) profiles were performed on the "Strela" digital computer using the integral method. The following results are collected in three bulky diagrams: 1) The variation of ionization with time at altitude intervals of 20 km, and the variations of ionization maxima. 2) Variations of the altitudes for given N/N_m ratios (N denoting ionization, N_m the ionization maximum). 3) Deviations of the parameters from a given profile. The results are discussed to show that the general character of the variations of ionization in middle latitudes during intense magneto-ionospheric disturbances is about the same both in winter and in summer.

Card 1/2

The $N(h)$ profiles of the ionosphere

IS/203/63/003/001/008/022

A061/A126

There are 4 figures and 2 tables.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln AN SSSR (Institute of Terrestrial Magnetism,
Ionosphere and Radio Wave Propagation AS USSR)

SUBMITTED: July 28, 1962

Card 2/2

S/726/58/000/001/001/004
E032/E414

AUTHORS: Al'pert, Ya.L., Chudesenko, E.F., Shapiro, B.S.

TITLE: Results of studies of the outer region of the ionosphere based on observations of radio signals from the first artificial earth satellite

SOURCE: Predvaritel'nyy itogi nauchnykh issledovaniy s pomoshch'yu pervykh sovetskikh iskusstvennykh sputnikov Zemli i raket; sbornik statey. no.1. XI razdel programmy MGG (rakety i sputniki). Moscow, Izd-vo AN SSSR. 40-52

TEXT: A method of measuring the electron density distribution in the ionosphere above its principal maximum is reported. The method is based on the determination of the time corresponding to the "radio rise" and "radio setting" of an artificial earth satellite. It was found in practice that the radio rise and the radio setting of the first Soviet satellite could be determined to within 5 to 6 sec. Orbital data were then used to determine the projected coordinates of the satellite on the earth's surface at these two instants of time and the horizontal range of the satellite. Next, specially prepared synoptic charts of the

Card 1/4

Results of studies ...

S/726/58/000/001/001/004
E032/E414

critical frequencies and of the positions of the lower boundary and the maximum of the F-region were used to determine these parameters at points corresponding to 1,2,3 and 4 in Fig.4. Theoretically computed ranges were then used to estimate the parameter κ in

$$N \sim N_M \exp[-\kappa(z_c - z_0)]$$

where N_M is the electron density at the principal maximum, N is the electron density above the maximum and z_0 is the height of the lower boundary of the ionosphere. The quantity κ was regarded as a characteristic of the reduction in the electron density above the density maximum of the ionosphere. In these calculations the lower part of the ionosphere was assumed to have a parabolic electron density variation. In the final analysis experimental values of the maximum range of reception were compared with theoretical results for different values of κ and hence the optimum value of this quantity was chosen to yield the best agreement between the experimental and theoretical results. The resulting values of κ (or the possible values of κ in the Card 2/4

Results of studies ...

S/726/58/000/001/001/004
E032/E414

case of an ambiguous situation) were then used to estimate the variation in the electron density above the principal maximum. Analysis of the results of observations obtained for three days was found to yield the following average values: position of the lower boundary of the ionosphere - 200 km; position of the principal maximum relative to the lower boundary - 120 km; electron density variation -

$$N \sim N_M e^{-\alpha(z - z_M)} = 1.8 \times 10^6 e^{-3.5 \times 10^{-3}(z - 320)}$$

The latter formula is said to hold in the region 320 to 600 km above the earth's surface. Extrapolation of these data to $z = 2000$ to 3000 km shows that the electron density in this region is of the order of 200 to 300 cm^{-3} . Estimates of the neutral particle concentration at these heights showed it to be of the order of 1 cm^{-3} . It is, therefore, suggested that the height of the outer boundary of the ionosphere, i.e. the region in which it is in "contact" with the interstellar gas, is of the order of 2000 to 3000 km. There are 8 figures and 1 table.
Card 3/4

Results of studies...

S/726/58/000/001/001/004
EO32/E414

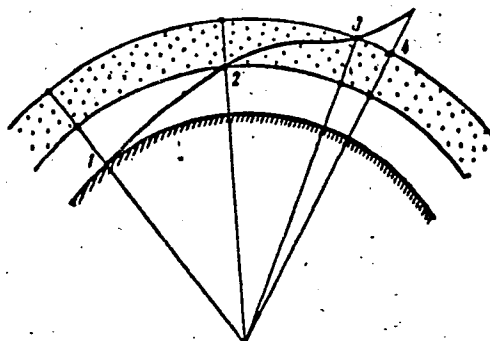


Fig. 4.

Card 4/4

S/203/63/003/002/010/027
D207/D307

AUTHORS: Shapiro, B.S. and Vinnikova, T.L.

TITLE: Programming of calculations of the true heights of the ionosphere on an electronic computer

PERIODICAL: Geomagnetizm i aeronomiya, v. 3, no. 2, 1963, 269-276

TEXT: Investigations of the vertical distribution of the ionization with the height h in the ionosphere below the maximum of the F2 layer require labor-consuming calculations. Electronic computers are used to ease these calculations. A program of calculations of the true heights of the ionosphere, suitable for the Strela computer, has been described by B.S. Shapiro (Sbornik 'Issledovaniya ionosfery' (Collection 'Investigations of the Ionosphere') no. 5, Izd. AN SSSR, 1962, 121). The present paper gives the formulas and the program for the calculation and subsequent analysis of the true heights, suitable for the BESM-2 (BESM-2) computer. BESM-2 deals simultaneously with 16 $h(f)$ curves, where f is the frequency, with a

Card 1/2

Programming of calculations ...

S/203/63/003/002/010/027
D207/D307

maximum of 75 ordinates for each curve: in the case of Strela 8 curves are dealt with (a maximum of 100 ordinates for each curve). The average time for dealing with each $h(f)$ curve by BESM-2 is about 15 sec, compared with 30 sec in the case of Strela.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute for Terrestrial Magnetism, Ionosphere and Radiowave Propagation, AS USSR)

SUBMITTED: August 14, 1962

Card 2/2

LIST AND ONE GROUPS																										PRECEDENCE AND PRIORITY																										THE ANALYTICAL GROUPS																									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50																												
58 Quality problems of automobile sheets in production and stamping. R. S. Shapiro, N. T. Shetyn and N. I. Rydzanov. <i>Kachestva Stal</i> 1935, No. 7, 22-9; <i>Chem. Zvesti</i> 1936, I, 1990. The effects of chem. compn., production history, mech. characteristics, structure, thickness, purity of metal and external effects are discussed.																																																																													
ASB 51A METALLURGICAL LITERATURE CLASSIFICATION																																																																													

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
COMMON ELEMENTS																										COMMON VARIANTS INDEX																									
The production of thin plate from tungsten magnet steel. B. S. Shapiro. <i>Kachestvennyi Stal</i> 5, No. 10, 34-7 (1937). <i>Chem. Zentr.</i> 1938, II, 934. Methods for securing the most favorable operating conditions for the rolling of thin plate from magnet steel contg. 0.6% W are described. The rolling temp. for the slabs is 1180-1200°. Pickling of the intermediate product should be done with a 10% H₂SO₄ soln. The final rolling of the plate is done at a temp. be- low 760°. Plates or sheets so produced possess a coercive force of not less than 60 oersteds and a remanence of not less than 9500 gaussess. M. G. Moore																																																			
ASME 3.4 DETALLURGICAL LITERATURE CLASSIFICATION																																																			

SHARRO, L.E.

The rolling of thin, high grade sheets Moskva, Red. lit-ry po chernoi i tsvatnoi
Metallurgii, 1950. (Mic 55-201,

Microfilm TS-6

SHAPIRO, B. S. and GOLDMAN, A. L.

"Rolling Thin Carbon-Steel Sheet with High Elastic Properties," ~~SI~~
Stal', No.6, pp 89-94, 1946

Insulation B-60430

SHAPIRO, B. S.

"V. A. Pisanko's Book: 'Mechanical Working of Rollers'," Stal', No. 6, 1948. Engr.,
Ministry of Ferrous Metal. -c1948-.

BEL'SKIY, B.E., inzhener; BYSTROV, B.M., inzhener, retsenzent; PIRSKIY, F.N.,
retsenzent; FEDOSOV, N.M., kandidat tekhnicheskikh nauk, retsenzent;
SHAPIRO, B.S., inzhener, retsenzent.

[Production of hot-rolled sheet steel] Proizvodstvo goriachekatanogo
lista. Moskva. Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi
metallurgii, 1953. 582 p. (MLRA 6:5)

(Sheet steel,

GONCHAR, V.V.; SHAPIRO, B.S., redaktor; STARODUBTSEVA, S.N., redaktor; ATTO-POVICH, M.K. tekhnicheskiiy redaktor.

[Collection of nomographic charts for metal rolling] Atlas nomogramm
po prokatke. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po cherno
i tsvetnoi metallurgii, 1954. 47 p. (MLRA 7:12)
(Rolling (Metal work))

GUREVICH, David Yakovlevich; SHAPIRO, B.S., inzhener, retsenzent;
FEDOSOV, H.M., redaktor; BERNSTEIN, M.L., redaktor;
MIKHAYLOVA, V.V., tekhnicheskii redaktor

[Concise manual for rolling mill operators] Kratkii spravochnik prokatchika. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1955. 415 p. (MLRA 8:10)
(Rolling mills)

Shapiro, B. S.

✓ Proceedings of the All-Union Conference of Rolling-Mill Operators. B. S. Shapiro. (Sov. 1955, (7), 654-656). (In Russian). The discussions at a rolling-mill conference at Magnitogorsk in April 1955 are reported. Recent and expected progress in the U.S.S.R. is dealt with.—a. e.

metal
structure

of

SOV/137-57-10-19052

Translation from Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 89 (USSR)

AUTHOR Shapiro, B S

TITLE Mastering the Production of Economical Shapes and Types of Rolled Metal at the Plants of the USSR Ministry of Ferrous Metallurgy (Osvoeniye ekonomichnykh profiley i vidov prokata na zavodakh Ministerstva chernoy metallurgii SSSR)

PERIODICAL V sb. Ratsionalizatsiya profiley prokata. Moscow, Profizdat, 1956, pp 33-59

ABSTRACT The advantage of bent sections (S) lies in the possibility of producing more complex and advantageous configurations than is possible with rolled S in terms of moments of resistance and inertia. Today the production of bent S is limited by the acutely short supply of thin sheet steel and strip. During the sixth Five-year Plan, the production of bent S will be organized at a number of plants and will constitute not less than 800,000 t per year. The utilization of periodically deformed rolled S provides, in addition to savings in metal (M), a sharp reduction in the labor involved in manufacturing products and an increase in the capacity of forge-press equipment. The im. Petrovskiy Plant is the main supplier of large periodic

Card 1/2 merchant S for the machinery industry. It is necessary that special

SOV/137-57-10-19052

Mastering the Production of Economical Shapes and Types (cont.)

stands for the production of periodic S of medium size be set up at one of the merchant mills. The steel industry also faces the problem of developing a process for the manufacture of reinforcements and small periodic S in coils. A considerable group of economical S is represented by the new shaped S, which make it possible to simplify the consumers' production processes and to reduce the labor required. Production of such S is rising in accordance with the demands of various ministries. The conditions for the production of economical, lightened (thin-webbed) sections are more favorable on continuous mills owing to the high temperature at the close of rolling. The rolling of such S will be organized in the immediate future at 2 newly-launched continuous mills. The economic desirability of replacing carbon steel by low-alloy steel in the heavy elements of stationary structures (main girders for trestles and bridges), hydraulic structures and in moving assemblies is beyond argument. In view of the fact that low alloy steel is most rationally produced from naturally alloyed steel, it is necessary to accelerate the construction and launching of the steel-melting and rolling departments of the Orsk-Khalilovo Kombinat. Diminution of the allowances for rolled steel afford a saving of metal. The next step in saving metal should be the accounting of the major types of rolled steel calculated relative to their theoretical

Card 2/2 weight S.G.

✓ 9849* For Speedier Introduction of Economical Profiles in Rolled Iron. Uskorit' osvoenie ekonomichnykh profilov prokatsa. (Russian.) B. S. Shapiro. *Metallurg*, 1956, no. 1, Jan. 1956, p. 12-15.

Discusses replacing some of the presently used rolled shapes with more economical lighter profiles. Examples of revised shapes saving labor and material in some cases up to 17%. A special group of bent rolled profiles is described. Diagrams, table.

metal

SHAPIRO, B.S., inzhener.

Scientific and technical conference on establishing standards of
useful rolled shapes. Stal' 16 no.3:268-270 Mr '56. (MLRA 9:7)

1.Ministerstvo chernoy metallurgii SSSR.
(Rolling (Metalwork))

ADRIANOVA, V.P.; ANDREYEV, T.V.; ARANOVICH, M.S.; BARSKIY, B.S.; GROMOV, N.P.;
GUREVICH, B.Ye.; DVORIN, S.S.; YERMOLAYEV, N.F.; ZVOLINSKIY, I.S.;
KABLUKOVSKIY, A.P.; KAPELOVICH, A.P.; KASHCHENKO, D.S.; KLIMOVITSKIY,
M.D.; KOLOSOV, M.I.; KORCLEV, A.A.; KOCHINEV, Ye.V.; LESEKOV, A.V.;
LIVSHITS, M.A.; MATYUSHINA, N.V.; MOROZOV, A.N.; POLUKAROV, D.I.;
RAVDEL', P.G.; ROKOTYAN, Ye.S.; SMOLYARENKO, D.A.; SOKOLOV, A.N.;
USHKIN, I.N.; SHAPIRO, B.S.; EPSHTEYN, Z.D.; AVRUTSKAYA, R.F., red.
izd-va; KARASEV, A.I., tekhn.red.

[Brief handbook on metallurgy, 1960] Kratkii spravochnik metallur-
ga, 1960. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i
tsvetnoi metallurgii, 1960. 369 p. (MIRA 13:7)
(Metallurgy)

133-8-17/28

AUTHOR: Shapiro, B.S. (Engineer).

TITLE: Scientific-Technical Conference on automatic hard-facing of rolling rolls and other parts of metallurgical equipment. (Nauchno-Tekhnicheskoye Soveshchaniye po avtomaticheskoy naplavke prokatnykh valkov i drugikh detaley metallurgicheskogo oborudovaniya).

PERIODICAL: "Stal'" (Steel), No.8, 1957, pp.732-735 (USSR).

ABSTRACT: A short account of the proceedings of the above conference (in Kiev, date not stated) is given. The following papers were read: B.S.Shapiro - "On Tasks of Increasing the Stability and Decreasing Consumption of Steel Rolls." Requirements of rolling engineers in respect of mechanical properties, gripping capacity and state of surface of rolling rolls were discussed. I.I.Frumkin (E.O.Paton Electrowelding Institute) - "Methods of Automatic Welding On Under Flux Developed by the Institute". Petrichenko - "On the availability of Welding Equipment and Estimated Requirements for this Equipment and Welding Materials". Zalutskiy - "On the Necessity of Organisation of Automatic Hard Facing by Welding on of Some Blast Furnace and Other Equipment". K.V.Bagryanskiy - "On advantages of alloying of a welded on layer through ceramic fluxes." Applicat-

Card 1/3

133-8-17/28

Scientific-Technical Conference on automatic hard-facing of rolling rolls and other parts of metallurgical equipment. (Cont.)

ions of hard facing by welding practiced on various works were communicated by: L.Z.Leshchinskiy - Magnitogorsk Combine; V.P.Gorelova - Voroshilov's Works; Morozov - Kramatorskiy Metallurgical Works; P.I.Antonov - "Krasnyy Oktyabr'" Works; Shevchenko - Frunze Konstantinovskiy Works; Smirnov - Nizhne-Tagil'sk Combine; L.A.Volkova - Petrovskiy Works; Vengerovskiy - Lenin Works; Brailovskiy - Sinarskiy Tube Works; Rozenman - Pervoural'skiy Novotrubnyy Works and Borisenko - Kubyshev Tube Works in Zhdanovsk. The following papers by members of the staff of the E.O.Paton Institute of Electrowelding were also read: On electro-slag facing of wearing parts, by I.K.Pokhodnya; on automatic facing of parts of a small diameter by A.I.Korennoy; on typical equipment for facing parts of metallurgical equipment by P.I.Sevbo. Other communications were given by: Gotgel'f (Magnitogorsk Wire-Metallurgical Works), Krivenko, ("Leninruda" Trust), Potapov (Opytnosvarochnyy Works), and others. The following recommendations were made by the conference: welding on for the reconstitution of dimensions of rolling rolls with wire 30X1CA, for maximum increase of

Card 2/3

Shapiro, B.S.
AUTHOR: Shapiro, B.S., Engineer

133-11-7/19

TITLE: The Development of the Production of Rolling Products
(Razvitiye proizvodstva prokata)

PERIODICAL: Stal', 1957, no.11, pp. 992 - 996 (USSR).

ABSTRACT: The development of the production of rolling products
in the USSR is reviewed and improvements achieved in the output
of rolling mills illustrated in Tables 1-3.
There are 3 tables.

AVAILABLE: Library of Congress
Card 1/1

SHAPIRO, B.S., inzh.

Automatic building up of workpieces used in metallurgical equipment.
Bul. TSNIICEM no.21:34-46 '57. (MIRA 11:5)
(Electric welding)

SHAPIRO, B.S.

AUTHOR: Shapiro, B.S., Engineer

133-58-3-12/29

TITLE: On the Rational Calibration of Rails (Summary of Discussion)
(O ratsional'noy kalibrovke rel'sov (K itogam diskussii))

PERIODICAL: Stal', 1958, Nr 3, pp 227-230 (USSR)

ABSTRACT: This is a summary of the discussion on the subject which was carried out on the pages of this journal (Refs.1-3). The author concluded that it was shown by experimental work and production practice on iron and steel works, reported during the discussion, that the following factors have a beneficial influence on the surface quality of rails: 1) Exclusion of rib pass. 2) Application of higher initial billets. 3) Application of higher flange in the first trapezoidal pass. 4) Oblique arrangement of the flat rail passes with limited spread. The following parameters of the roll-pass design required further studies with appropriate experimentation on an industrial scale: a) the best number of trapezoidal passes; b) optimum angle of rise of the flange of the first trapezoidal pass and the character of unbending flanges (uniform or sharp); c) the height of the flange in trapezoidal passes on the sector of the future rail head. Further studies of the new method of calibration proposed by the Kuznetskiy

Card 1/2

On the Rational Calibration of Rails

133-58-3-12/29

Kombinat (Kuznetsk Combine) in which the head and foot of the rail is rolled from the corners of the blooms which are usually less affected by surface defects and are submitted during rolling to highest deformations. There are 3 figures and 6 Soviet references.

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Card 2/2

PHASE 1 BOOK EXPLOITATION SOV/5336

Atkaidiya nauk SSSR, Mezhdunarodnyy komitet po provedeniyu Mezhdunarodnogo geofizicheskogo goda. V rubezh programy K55: Ionosfera
Issledovaniya Ionosfery (Ionospheric Research) Moscow, Izd-vo AN SSSR, 1960. 112 p.
(Series: Ite Sbornik statey, no. 5) 2,000 copies printed.

Resp. Ed.: G.N. Gorbunova, Candidate of Physics and Mathematics; Ed.: A.D. Podolskiy; Tech. Ed.: T.V. Polyakova.

PURPOSE: This publication is intended for geophysicists, meteorologists, and communications specialists.

COVERAGE: This collection of 12 articles on the ionosphere, published by the Soviet IOY Committee, presents some of the results of vertical soundings made at 23 Soviet stations in the period 1957-1959. Individual articles deal with the geographic distribution of ionospheric absorption and its relation to solar flares and magnetic storms, the altitudinal distribution of ionization calculated with electronic computers, and ionospheric observations in the Arctic and Antarctic. An English resume accompanies each article. No personalities are mentioned. References follow individual articles.

Kerblay, T.S. Dependence of the Maximum Frequencies of the Sporadic Es Layer on the Characteristics of the Ionosonde System 50

Chandarov, S.S. Sporadic Es Layer According to Observations in Middle Latitudes 64

Dolgova, Ye.I. The Problem of Interpretation of the Nocturnal and Es Layer With Group Retardation 69

Kerblay, T.S. Some Peculiarities of the Geographical Distribution of Critical Frequencies in the F2 Layer During High Solar Activity 74

Besprozumnaya, A.S. Estimating F2 Layer Disturbance in High Latitudes 81

Spanko, B.S. Calculating the Altitudinal Distribution of Ionization With Electronic Computers 95

Rukin, G.Y. Ionospheric Observations on Board the Motor Ship "Kalinin" During the Voyages to the Antarctic 100

Seitnov, V.B. Preliminary Results of Testing an Aircraft Ionospheric Station in the Arctic 106

AVAILABLE: Library of Congress

Card 1/1

JA/ava/esp
7-28-61

SHAPIRO, B.S., inzh.

Selecting an efficient type of sheet-rolling mill. Stal'
20 no.8:722-726 Ag '60. (MIRA 13:7)
(Rolling mills)

SHAPIRO, B.S.

Rolling mill operators report to the 2nd Congress of the
CPSU. Metallurg 6 no.10:22-24 0 '61. (MIRA 14:9)

1. Gosudarstvennyy planovyy komitet Soveta Ministrov RSFSR.
(Rolling (Metalwork))

AGRE, V.L.; AL'DIYEVA, K.N.; ANANYAN, V.V.; BERLIN, R.I. [deceased];
ISTOMIN, A.V.; KAGAN, I.A.; KRONGAUZ, N.D.; KULAKOV, A.M.;
MARKOV, V.P.; MATVEYEV, Yu.M.; NESVETAYEV, A.M.; OSIPOV, A.P.
[deceased]; POZIN, M.S.; FAYNSHTEYN, V.M.; SHAPIRO, B.S.;
SHEVCHENKO, N.A.; SHCHIRIN, V.N.; AL'SHEVSKIY, L.Ye., kand.
tekhn.nauk, red.; VLADIMIROV, Yu.V., red.izd-va; MIKHAYLOVA,
V.V., tekhn.red.

[Rolling and pipe mills] Prokatnoe i trubnoe proizvodstvo.
Pod red. L.E.Al'shevskogo i A.V.Istomina. Moskva, Gos.nauchno-
tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1962.
246 p. (MIRA 15:2)

1. Moscow. TSentral'nyy institut informatsii chernoy metallurgii.
(Rolling mills) (Pipe mills)

METS, Aleksandr Fedorovich; SHAPIRO, B.S., red.; KOVALEVSKIY, M.A.,
red. izd-va; DOBUZHINSKAYA, L.V., tekhn. red.

[Production organization in rolling mills] Organizatsiia pro-
izvodstva v prokatnykh tsekhakh. Moskva, Metallurgizdat, 1962.
215 p. (MIRA 15:12)

(Rolling mills--Management)

SHAPIRO, B. S.

Potentialities in rolling mill practice to serve communism.
Metallurg 7 no.11:6-8 N '62. (MIRA 15:10)

1. Gosplan RSFSR.

(Rolling(Metalwork))

SHAPIRO, B.S.

Achievements of the rolling mill industry in the U.S.S.R. on the
45th anniversary of October. Stal' 22 no.11:1010-1014 N '62.
(MIRA 15:11)

1. Gosplan RSFSR.

(Rolling mills)

SHAPIRO, B.S.

Production of broad-flange beams in the U.S.S.R. Stal' 23
no.3:228-231 Mr '63. (MIRA 16:5)

1. Gosplan RSFSR.
(Rolling (Metalwork)) (Beams and girders)

SHAPIRO, B.S.

We are improving the quality of railroad rails manufactured in
the U.S.S.R. Metallurg 9 no.2:24-26 F '64. (MIRA 17:3)

1. Gosplan RSFSR.

SHAPIRO, B.S.

Improving the assortment of rolled products. Metallurg 10 no.10:1-3
0 '65. (MIRA 18:10)

1. Gosplan RSFSR.

I. 11-05-46 WPT(m)/EWP(L)/T/ETI/EWP(R) I.P(c) JD/HW
 ACC NR: AP6029871 SOURCE CODE: UR/0413/66/000/015/0022/0022

INVENTOR: Voronov, F. D.; Filatov, A. D.; Gun, S. B.; Selivanov, N. M.; Nosov, V. D.; Savel'yev, G. V.; Goncharov, F. I.; Plotnikov, P. I.; Roshkov, S. A.; Kustobayev, G. G.; Polushkin, V. P.; Arkhipov, V. M.; Uziyenko, A. M.; Kolov, M. I.; Kozhevnikov, V. P.; Shapiro, B. S.; Kalugin, V. F.; Grudev, P. I.; Aksenov, B. N.; Khomyachkov, A. P.; Rudakov, Ye. A.; Kuzema, I. D.; Gomzhin, V. V.; Poydyshev, B. N.; Shternov, M. M.

ORG: none

TITLE: Method of making high-strength steel plates by pack rolling. Class 7, No. 184232

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 22

TOPIC TAGS: high strength steel, high strength steel plate, high strength steel sheet, steel plate rolling, steel sheet rolling

ABSTRACT: This Author Certificate introduces a method of pack rolling high-strength steel plates and sheets up to 10 mm thick and up to 3500 mm wide in a carbon steel envelope. The method includes cleaning, coating, making of the pack, heating, rolling and subsequent heat treatment. To ensure an accurate thickness of the plates

Card 1/2 UDC: 621.771.23

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ACC NR: AP6029871

or sheets regardless of their location in the pack, the thickness of the envelope must be at least 0.6 of the total initial thickness of the high-strength plates of the pack. [ND]

SUB CODE: 13/ SUBM DATE: 18Jun64/ ATD PRESS: 5070

Card 2/2 blg

SHAPIRO, B. Ya.

"Pneumoperitoneum as a Method used in Collapse Ootherapy," Prob. Tuber., No. 3, 1949.
Mbr., Clinic Lung Tuberculosis, 1st Leningrad Med. Inst. im. I. P. Pavlov, -cl949-.

SIMENSHTEYN, G.N., kand.med.nauk, SHAPIRO, B.Ya., kand.med.nauk

Thoracoplasty in modern therapy of pulmonary tuberculosis [with summary
in French]. Probl.tub. 36 no.5:14-21 '58 (MIRA 11:8)

1. Iz kliniki tuberkuleza legkikh (dir. - prof. A.Ya. TSigel'nik)
I Leningradskogo meditsinskogo instituta imeni I.P. Pavlova.
(COLLAPSE THERAPY,
thoracoplasty (Rus))

TSIGEL'NIK, A.Ya.; KOSTINA, Z.I.; GRIGOR'YEVA, V.I.; AFANAS'YEV, I.V.
LEVITIN, Ya.M.; SHAPIRO, B.Ya. (Leningrad)

Pathogenesis of amyloidosis in tuberculous patients and diagnosis
of its reversible forms. Klin.med. no.12:14-21 '61.

(MIRA 15:9)

1. Iz kafedry tuberkuleza (zav. - prof. A.Ya. TSigel'nik) I
Leningradskogo meditsinskogo instituta imeni I.P. Pavlova.
(TUBERCULOSIS) (AMYLOIDOSIS)

TSIGEL'NIK, A.Ya.; SHAPIRO, B.Ya.

Amyloidosis in pulmonary tuberculosis. Sovet. med. **27** no.6:
87-92 Je'63 (MIRA 17:2)

1. Iz kafedry legochnogo tuberkuleza (zav. - prof. A.Ya.
TSigel'nik) I Leningradskogo meditsinskogo instituta imeni
I.P.Pavlova.

TSIGEL'NIK, A.Ya., prof.; SHAPIRO, B.Ya., kand. med. nauk

Pulmonary tuberculosis in elderly persons. Trudy LIETIN no.16:
271-277 '64. (MIRA 19:1)

1. I Leningradskiy meditsinskiy institut imeni akademika I.P.
Pavlova.

SIMENSHTEYN, G.N., kand. med. nauk; SHAPIRO, B.Ya., kand. med. nauk

Prevention of the development of hemothorax following extra-pleural pneumolysis. Vest. khir. no. 6:35-37 '65.

(MIRA 18:12)

1. Iz kliniki legochnogo tuberkuleza (zav. - prof. A.Ya. TSigel'-nik) 1-go Leningradskogo meditsinskogo instituta imeni Pavlova.

IVANCHENKO, Pavel Nikolayevich, kand. tekhn. nauk; SAVEL'YEV, Nikolay
Mikhaylovich, inzh.; SHAPIRO, Boris Zakharovich, inzh.; VOVK,
Vasiliy Grigor'yevich, inzh.; BELYAKOV, V.A., kand. tekhn. nauk,
dots., retsenzent; YURKEVICH, M.P., inzh., red. izd-va;
SHCHETININA, L.V., tekhn. red.

[Electromechanical transmissions; theory and design] Elektro-
mekhanicheskie peredachi; teoriia i raschet. Pod red. P.N.
Ivanchenko, Moskva, Mashgiz, 1962. 431 p. (MIRA 15:6)
(Motor vehicles--Transmission devices)
(Electric driving)

AUTHOR: Shapiro, D. SOV/2-58-12-11/19

TITLE: How to Determine the Available Lumber Supply (K voprosu ob opredelenii gotovnosti lesoproduktsii)

PERIODICAL: Vestnik statistiki, 1958, Nr 12, pp 61 - 62 (USSR)

ABSTRACT: The huge development of the building industry, and in particular of housing construction, demands large quantities of lumber. To determine the available lumber material, the following requirements must be satisfied: a) the lumber must be sorted; b) the lumber must be stored at final overland transportation points. The lumber which is not taken out of the forest, must be regarded as a semi-finished product.

Card 1/1

SHAPIRO, D. (Novorossiysk).

Fire prevention campaign among city population. Pozh.delo 3
no.12:3-4 D '57. (MIRA 10:12)
(Novorossiysk--Fires and fire prevention)

LIOKUMOVICH, L.; SHAPIRO, D., kandidat tekhnicheskikh nauk.

Semidry pressed hollow bricks. Stroi. mat. 2 no.11:26-27 (MLRA 10:2)
N '56.

1. Glavnyy inzhener Rostovskogo kirpichnogo zavoda No.2. (for
Liokumovich).
(Hollow bricks)

ABLOVA, E., arkhitektor; VERSTIN, G., inzh.; DANILOVA, F., inzh.;
SHAPIRO, D., inzh.

Experimental frame-slab school on the state farm "Zaria
Kommunizma." Sel'. stroi. no. 12:8b-10 D '62.
(MIRA 16:1)

(Moscow Province--Schoolhouses)
(Precast concrete construction)

SHAPIRO, I.: SUMMARY, I.

Tare

Marking tare with a solution of potassium permanganate. Mas. ind. SSSR No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, August 1952, UNCLASSIFIED

SHAPIRO, D. A.

"Experience With Prevention of Grippe and Colds," Voenno-Med. Zhur., No. 11,
p. 74, 1955.

SHAPIRO, D.A., (Kiyev)

Perforation of the auricula of trophic character. Vest.oto-rin.
17 no.3:72 My-Je '55. (MLRA 8:9)

(EAR, EXTERNAL

helix porf.caused by circ.disord. after infect.,surg.)

(BLOOD CIRCULATION

disord.after infect.dis.,causing perf. of helix, surg.)

CA

*General & Physical
Chemistry - 2*

Relation between the electromotive force of diffusion in

pit-holes and the adsorptive properties of the rocks. D. A. Shapiro. *Doklady Akad. Nauk S.S.S.R.* 77, 637-40 (1951).—The e.m.f. of diffusion at the boundary of 2 porous rocks with different adsorptive properties, satd. with different concns. of a uni-univalent salt, does not in general obey Nernst's Law, as a result of preferential adsorption of anions or cations. Analysis of the equations taking this factor into account shows that the anomaly is a function of the difference of the concns. in adjacent layers, and its magnitude is not in general a linear function of the log of the concn. The anomaly decreases with decreasing pore size of the rock and with increasing satn. with gas and petroleum.
N. Thon

SHAPIRO, D. A.

"Radioactive Methods in Surveying Bore-Holes in the Tatar ASSR," Utilization
of Radioactive Isotopes & Emanations in the Petroleum Industry (Symposium), Min.
Petroleum Industry USSR, 1957.

Results of the Joint Session of the Technical Council of Min of the Petroleum
Industry USSR and Soviet Sci and Technical Association, Moscow 14-19 Mar 1956.

SHAPIRO, D. A. Cand Geol-Min Sci -- (diss) "Certain problems of the theory of diffusion-and-adsorption potentials in drill holes." Kazan', 1957. 24 pp with illustrations (Min of Higher Education USSR. Kazan' Order of Labor Red Banner State Univ im V. I. Ul'yanov-Lenin), 100 copies (KL, 4-58, 81)